

CLAIMS

What is claimed is:

1. An accelerator system for synthetic polyisoprene comprising dithiocarbamate and thiourea.
2. The accelerator system of Claim 1 wherein the dithiocarbamate is selected from the group consisting of sodium dithiocarbamate, zinc dithiocarbamate and combinations thereof.
3. The accelerator system of Claim 2 wherein the zinc dithiocarbamate is selected from the group consisting of zinc dibutyldithiocarbamate, zinc diethyldithiocarbamate, zinc dibenzoyldithiocarbamate and combinations thereof.
4. The accelerator system of Claim 1 further comprising thiazole.
5. The accelerator system of Claim 4 wherein the thiazole is selected from the group consisting of zinc 2-mercaptobenzothiazole, sodium 2-mercaptobenzothiazole, or combinations thereof.
6. The accelerator system of Claim 1 wherein the thiourea is 1,3 dibutyl thiourea.
7. A composition comprising synthetic polyisoprene latex and an accelerator system having dithiocarbamate and thiourea wherein the composition is capable of forming a polyisoprene film having a tensile strength of about 3,000 psi to about 5,000 psi when subjected to heat and cured.

8. The composition of Claim 7 having greater than about 0.2 phr to about 4.0 phr dithiocarbamate and greater than about 0.2 phr to about 4.0 phr thiourea.
9. The composition of Claim 7 wherein the dithiocarbamate is selected from the group consisting of sodium dithiocarbamate, zinc dithiocarbamate and combinations thereof.
10. The composition of Claim 9 wherein the zinc dithiocarbamate is selected from the group consisting of zinc dibutyldithiocarbamate, zinc diethyldithiocarbamate, zinc dibenzoyldithiocarbamate and combinations thereof.
11. The composition of Claim 7 further comprising thiazole.
12. The composition of Claim 11 wherein the thiazole is selected from the group consisting of zinc 2-mercaptobenzothiazole, sodium 2-mercaptobenzothiazole, or combinations thereof.
13. The composition of Claim 7 wherein the thiourea is 1,3 dibutyl thiourea.
14. The composition of Claim 7 which does not contain tetramethylthiuram disulfide or diphenylguanidine.
15. A method for curing synthetic polyisoprene latex in the form of a film comprising the steps of forming a film from a composition comprising synthetic polyisoprene latex and an accelerator system having dithiocarbamate and thiourea and heating the film at a temperature of about 90 °C to about 140 °C for up to about 30

minutes wherein the synthetic polyisoprene latex cured film has a tensile strength of about 3,000 psi to about 5,000 psi.

16. The method of Claim 15 wherein the dithiocarbamate is selected from the group consisting of sodium dithiocarbamate, zinc dithiocarbamate and combinations thereof.
17. The method of Claim 16 wherein the zinc dithiocarbamate is selected from the group consisting of zinc dibutyldithiocarbamate, zinc diethyldithiocarbamate, zinc dibenzoyldithiocarbamate and combinations thereof.
18. The method of Claim 15 wherein the accelerator system further comprises thiazole.
19. The method of Claim 15 wherein the thiourea is 1,3 dibutyl thiourea.
20. A latex glove comprising synthetic polyisoprene latex cured in accordance with the method of Claim 15.